

Remarks

The Rejection of Claim 1 Under 35 U.S.C. § 112, second paragraph

Claim 1 stands rejected as indefinite under 35 U.S.C. § 112, second paragraph. The Office Action asserts that “[c]laim 1 is vague in reciting ‘a wood composite product’ comprising ‘wood composite product’ (lines 1 &2).” Applicants respectfully traverse the rejection.

Under 35 U.S.C. § 112, second paragraph, the claims must “reasonably apprise those skilled in the art both of the utilization and scope of the invention.” *Georgia-Pacific Corp. v. United States Plywood Corp.*, 258 F.2d 124, 136, 118 U.S.P.Q. 122, 130 (2d Cir. 1958), *cert. denied*, 358 U.S. 884 (1958). Claim 1 serves this purpose. Claim 1 is directed to and recites “a **decorative** wood composite product.” Claim 1 recites that the decorative wood composite product comprises at least two elements:

- a wood composite product having a face layer comprising wood pieces bonded together with a thermosetting resin containing a surfactant; and
- a decorative overlay affixed to the face layer.

The plain language of claim 1 makes it clear that the wood composite product and the decorative overlay are elements of the decorative wood composite product recited in the preamble.

Claim 1 as written is definite. Applicants respectfully request withdrawal of the rejection.

The Rejections Under 35 U.S.C. § 103(a)

The Office Action contains three rejections under 35 U.S.C. § 103(a):

- claims 1-12, 15-18, 22-39, 44-53, 56, and 57 over Israel, U.S. Patent 4,898,776 in view of Eek-Vancells, EP 715935 or Luetgert U.S. Patent 6,610,164;
- claims 13, 14, 19, 20, 21, 40, 41, 43, 54, and 55 over Israel in view of Eek-Vancells or Luetgert and further in view of West, US 2003/0040562; and
- claim 58 over Israel in view of West.

Applicants respectfully traverse each of these rejections.

The U.S. Patent and Trademark Office bears the initial burden of establishing a *prima facie* case of obviousness. The *prima facie* case requires three showings:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Manual of Patent Examining Procedure, 8th ed., § 2142. The Office Action does not establish a *prima facie* case that any of claims 1-58 are obvious because it does not provide a legally sufficient motivation for the ordinary artisan to have modified and combined the cited teachings.

Claims 1-12, 15-18, 22-39, 44-53, 56, and 57

Independent claim 1 is directed to a decorative wood composite product comprising (1) a wood composite product having a face layer comprising wood pieces bonded together with a thermosetting resin containing a surfactant and (2) a decorative overlay affixed to the face layer. The Office Action cites Israel as teaching a synthetic board prepared by contacting wood

particles with a binder and contends that “[b]inder includes thermosetting resins (col. 10, lines 37-43).” Office Action at page 3, second paragraph. The Office Action cites Eek-Vancells or Luetgert as teaching a process for covering particle board or a method of selectively coating a wood composite, respectively. The Office Action asserts the teachings of Eek-Vancells or Luetgert make it obvious to apply a decorative layer to Israel’s particle board.

To assess whether a claimed invention is obvious, the teachings of a cited reference must be considered as a whole and compared with the subject matter of the rejected claims. *Graham v. John Deere* 383 U.S. 1, 17 (1966). Israel discloses a method of forming wood particles into board products by bonding together particles of wood or other cellulosic material using heat, pressure, and a “surfactant-modified binding system of the invention.” Col. 4, lines 3-6. The “surfactant-modified binding system of the invention” comprises an organic polyisocyanate and a reactive hydrogen-containing component, preferably an aromatic polyester polyol. Col. 4, lines 12-14. Israel contains lengthy teachings of suitable binder systems and their preparation col. 5, line 11, to col. 10, line 36. Israel then mentions that the binder composition “may also be used in conjunction with conventional thermosetting resin binders.” Col. 10, lines 37-39.

Israel plainly teaches that the “surfactant-modified binding system of the invention” is a combination of a surfactant and an organic polyisocyanate; inclusion of a thermosetting resin is optional and unnecessary to Israel’s invention. Israel neither teaches nor suggests combining a thermosetting resin with a surfactant and using that resin, rather than Israel’s disclosed “surfactant-modified binding system” to form a wood composite product. Israel does not teach or suggest an adhesive composition comprising a thermosetting resin, an amine, and a tall oil fatty acid, as recited in independent claim 53. Israel certainly does not teach such an adhesive

composition in which the amine and the tall oil fatty acid are present in an equivalent weight ratio of about 0.5 to about 1.5 (claim 56) or about 1:1 (claim 57).

Neither Eek-Vancells nor Luetgert remedies the deficiencies of Israel. Luetgert merely discloses a method of selectively coating wood composites using die-cut foil parts. Eek-Vancells teaches a method of covering a particle board with paper impregnated with a modified amino plastic resin. Col. 1, lines 14-16. Eek-Vancells states: "The covering must comprise four sheets of impregnated paper per board" Col. 2, lines 23-24, emphasis added. In contrast, the thermosetting resin of the present invention is part of the wood composite product. See claim 1.

To make a *prima facie* case of obviousness, "the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). Here the Office Action has not made the required showing. The Office Action merely asserts that the teachings of Eek-Vancells and Luetgert make it obvious to apply a decorative layer to the particle board disclosed in Israel. The Office Action points to no specific teachings in either Eek-Vancells or Luetgert to support the assertion.

In fact, there is nothing in the teachings of either reference which would have motivated the ordinary skilled artisan to modify the teachings of Israel to combine a thermosetting resin with a surfactant, to use the resin to form a wood composite product and to coat the wood composite product with a decorative overlay. There is, therefore, no *prima facie* case that claims 1-12, 15-18, 22-39, 44-53, 56, and 57 are obvious.

Even if, *arguendo*, a *prima facie* case of obviousness had been made, Applicants could rebut the *prima facie* case with unexpected results. Decorative wood products made according to

the invention have fewer surface pinholes as taught in the present specification. See paragraph [10] of the specification. There is nothing in the teachings of Israel, Eek-Vancells, or Luetgert to suggest that use of a thermosetting resin containing a surfactant would provide this benefit.

Claims 13, 14, 19, 20, 21, 40, 41, 43, 54, and 55

The Office Action cites West as teaching a composition for wood sealer comprising trimethylamine. The Office Action adds West to the combination of Israel and Eek-Vancells or Luetgert to reject dependent claims 13, 14, 19, 20, 21, 40, 41, 43, 54, and 55.

Claims 13, 14, 19, 20, 21, 40, 41, 43, 54, and 55 are not obvious over the combination of Israel, Eek-Vancells or Luetgert, and West. First, West teaches a wood filling and seal composition for coating wood products. Par. [0001]. The purpose of West's composition is to smooth the surface of wood. In contrast, the present invention teaches an adhesive composition which can be used to make wood composite products with fewer surface pinholes. The use of Applicants' adhesive composition of this invention and West's composition is entirely different.

Second, as explained above, the ordinarily skilled artisan would not have been motivated to combine the teachings of Israel and Eek-Vancells or Luetgert in the first place. West's teaching of a wood filling and seal composition does not provide the missing motivation. There is, therefore, no *prima facie* case that claims 13, 14, 19, 20, 21, 40, 41, 43, 54, and 55 are obvious.

Claim 58

The Office Action rejects claim 58 over Israel in view of West. Claim 58 is directed to an adhesive composition comprising a thermosetting resin, a tall oil fatty acid, and triethylamine in an equivalent weight ratio of about 1:1 with the tall oil fatty acid. The Office Action asserts it

would have been obvious from the teachings of Israel to prepare a composition comprising a thermosetting resin and a tall oil fatty acid and to add to it the triethylamine taught in West.

Israel teaches a “surfactant-modified binding system” which comprises an organic polyisocyanate and a reactive hydrogen-containing component, preferably an aromatic polyester polyol. Col. 4, lines 12-14. Israel contains no specific teaching which would have motivated one of ordinary skill to include both a thermosetting resin and a volatile amine, much less triethylamine, in the binding system. West teaches wood filling and seal compositions which provide a smooth coating for wood products. Par. [0001]. West does not teach or suggest using triethylamine in anything other than the disclosed wood filling and seal compositions.

The Office Action does not provide a legally sufficient motivation for the ordinary artisan to have combined any of the cited references in the manner the Office Action asserts. The Office Action does not explain how or why the ordinary artisan would have been motivated to modify and combine the cited teachings of Israel and Eek-Vancells or Luetgert, and West to arrive at Applicants’ claimed decorative wood composite product, improved method, or adhesive composition. Instead, the rejection relies on a hindsight use of Applicants’ specification, which is not permitted. The Patent and Trademark Office cannot pick and choose isolated elements of references and piece them together using Applicants’ specification as a template:

[s]tatements [in a prior art reference] cannot be viewed in the abstract. Rather, they must be considered in the context of the teaching of the entire reference. Further, a rejection cannot be predicated on the mere identification in [the reference] of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.

In re Kotzab, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000). Such an exercise is improper because it uses hindsight rather than considering the art from the viewpoint

of the ordinary artisan at the time the present application was filed. *Id.* at 1369, 55 U.S.P.Q.2d at 1316.

There is no *prima facie* case that any of claims 1-58 are obvious. Applicants respectfully request withdrawal of the rejections.

Claims 27 and 52

The Office Action notes that claims 27 and 52 contain the recitation "mylar" and points out that Mylar is a trademark. Applicants have amended claims 27 and 52 to recite "a polyester film" rather than "mylar." Applicants also have amended paragraph [025] of the specification, which supports the amendment, to refer to "MYLAR®."

Respectfully submitted,
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